

In the Claims:

Claims 1-52 (cancelled)

53. (Presently amended) A plant cell containing:

(a) nucleotide sequence encoding an immunoglobulin product comprising at least a portion of the variable region of an immunoglobulin light chain and a leader sequence forming a secretion signal, said immunoglobulin light chain ~~[derived]~~ **obtained** from an antigen-specific immunoglobulin comprising a heavy chain and the light chain, and;

(b) immunoglobulin product encoded by said nucleotide sequence wherein said leader sequence is cleaved from said immunoglobulin light chain following proteolytic processing, said at least a portion of the variable region of an immunoglobulin light chain being capable of forming an antigen-specific immunoglobulin when co-expressed in a plant cell with said heavy chain from said antigen-specific immunoglobulin wherein said plant cell does not contain nucleotide sequence encoding said immunoglobulin heavy chain.

Claims 54-55 (cancelled)

56. (Previously pending) The plant cell of claim 53 wherein the immunoglobulin product comprises a full-length immunoglobulin light chain.

Claims 57-62 (cancelled)

63. (Previously pending) The plant cell of claim 53 wherein the plant cell is from a dicotyledonous plant.

64. (Previously pending) The plant cell of claim 53 wherein the plant cell is from a monocotyledonous plant.

65. (Previously pending) The plant cell of claim 53 wherein the plant cell is from an alga.

67. (Previously pending) The plant cell of claim 53 wherein said immunoglobulin light chain variable region is a full length variable region.

68. (Previously pending) The plant cell of claim 53 wherein said nucleotide sequence also encodes at least a portion of the constant region of an immunoglobulin light chain.

Claims 69-75 (cancelled)

76. (Previously pending) A plant comprising the plant cell of claim 53.

Claims 77-84 (cancelled).

85. (new) A plant cell containing:

(a) nucleotide sequence encoding at least the antigen specific portion of an immunoglobulin light chain, said antigen specific portion of the light chain being capable of assembly with an immunoglobulin heavy chain to form an antigen-specific immunoglobulin, wherein said light chain and said heavy chain are the product of a lymphoid cell producing an antigen-specific immunoglobulin and wherein said plant cell does not contain nucleotide sequence encoding said immunoglobulin heavy chain; and

(b) antigen specific portion of an immunoglobulin light chain encoded by said nucleotide sequence.

86. (New) The plant cell of claim 85 wherein said nucleotide sequence encodes a full-length immunoglobulin light chain.

87. (New) The plant cell of claim 85 wherein said nucleotide sequence encodes a full-length immunoglobulin light chain variable region.

88. (New) The plant cell of claim 85 wherein said nucleotide sequence a variable region and at least a portion of the constant region of an immunoglobulin light chain.

89. (New) The plant cell of claim 85 wherein the plant cell is from a dicotyledonous plant.

90. (New) The plant cell of claim 85 wherein the plant cell is from a monocotyledenous plant.

91. (New) The plant cell of claim 85 wherein the plant cell is from an alga.

92. (New) A plant comprising the plant cell of claim 85.